# Chapter 1: Introduction and Background

## Overview: History of Refuge Establishment, Acquisition, and Management

The Wetland Management Districts of Minnesota are set in a landscape that was once a mosaic of prairie and wetlands. From north to south the land varied between woodland, sandy ridges and hills covered with prairie flowers, dotted with small, blue wetlands and oak savannah. It was beautiful, rolling country teaming with waterfowl and other wildlife. Early explorers from Europe described its park-like quality with wonder. The combination of prairie grasslands and small wetlands made it among the most biologically productive landscapes in the world; supporting many people and an abundance of wildlife.

*U.S. Fish & Wildlife Service Photo*

The prairie harbored bison herds estimated at 50 to 60 million. From Alexander Henry's January 14, 1801, journal reporting from the Red River Valley, "...At daybreak I was awakened by the bellowing of buffaloes...I dressed and climbed my oak for a better view. I had seen almost incredible numbers of buffalo in the fall, but nothing in comparison to what I now beheld. The ground was covered at every point of the compass, as far as the eye could reach, and every animal was in motion."

Only 100 years after this entry, the myth of the prairies' unlimited abundance was severely tested. Many important game species were driven to near extinction by intensive and uncontrolled killing and commercial over-harvest encouraged by East Coast and European markets. Free-roaming bison, the Great Plains wolf, swift fox, pronghorn antelope and grizzly bear were eliminated from Minnesota. Black bear and elk were removed from their prairie niche. Many Native American tribes that depended on these resources were decimated by disease and conflict.

When European settlers arrived on the prairies, they recognized the land's productivity and rapidly turned it to agriculture. In a few decades it ranked among the richest agricultural land in the world. The landscape changed so rapidly, little of the original prairie was saved. Today, only fragments remain in isolated, small blocks. With fragmentation and the loss of large predators, smaller predators such as raccoon, striped skunks, and fox increased, much to the detriment of ground-nesting birds and other native grassland species.

Perhaps no other ecosystem on earth as been so dramatically altered, in such a short time, as the tallgrass prairie ecosystem of the Midwest.

The early mission of the Fish and Wildlife Service was to protect species from over-harvest and manage wildlife for a quality hunt. Waterfowl have been a central focus from the very beginning. Many species of prairie waterfowl and shorebirds were saved by legislation formed to protect them from market hunting.

Early surveys of the Prairie Pothole Region revealed a strong correlation between prairie wetlands and waterfowl breeding habitat. Biologists learned that waterfowl success is directly linked to the number of wetlands. When winter snows fill the small wetlands, waterfowl populations soar. Since the wetlands are shallow by nature, their value to waterfowl varies from year to year depending on the amount of snow and rain. In years of drought, wetlands dry and waterfowl populations plummet. The crucial link between wetlands and waterfowl was made during a time when wetlands throughout the prairies were being drained at an unprecedented rate for agriculture.

In 1934 the Duck Stamp Act was passed, setting the stage for the most aggressive land acquisition campaign for conservation of wildlife habitat in American history. Although the original Act did not allow purchase of small wetlands, it created a way for hunters to actively participate in maintaining waterfowl populations. In 1958 the Act was amended, making it possible for the Service to buy small wetlands and uplands for breeding waterfowl and for hunting. The acquired wetlands became Waterfowl Production Areas (WPAs) and formed the core of the Wetland Management Districts.

The Act was passed in the nick of time. Between 1780 and 1980 approximately 78.7 percent of wetlands in the Prairie Pothole and Parkland Transition areas were drained (Dahl 1990). In intensive agricultural areas of the Prairie Pothole Region, wetland losses often exceed 90 percent. Today over 70,000 miles of ditches drain wetlands in Minnesota with a continuing annual wetland loss of 2.4 percent per year.

*Photo Copyright Jon Eldridge*

At the time the Small Wetland Acquisition Program (SWAP) began in 1962, the U.S. Fish and Wildlife Service entered into a Procedural Agreement with the State of Minnesota. This document laid out the rules for the purchase of wetlands as required by the Wetland Loan Act of 1961. The agreement was amended in 1976 when the number of counties authorized for acquisition increased from 19 to 28, and the goal acreage was increased. In 1991, the Minnesota Land Exchange Board gave the Service approval to expand its land acquisition program to all 87 counties of the state. The state goal of 231,000 acres in fee title and 365,170 acres in easements, as established in 1976, remains unchanged (See Appendix A for a complete listing of the District legal mandates).

In western Minnesota, as of March 31 1999, the Service owned 171,863 acres, of which 56,693 acres were wetlands (Figure 1). In addition, the Service administers perpetual easement agreements on 266,171 acres, of which 62,098 acres are wetlands. Wetlands that were once drained have been restored; on Waterfowl Production Areas, more than 4,000 wetland restorations have impounded 15,900 wetland acres.

The program has been remarkably successful in the face of great odds. The Wetland Management Districts combine to form a greater land mass than the largest national wildlife refuge in the lower 48 states. Each District has, on average, 23,400 to 73,400 breeding ducks each year; all Districts combined average 240,600 breeding ducks each year (Figure 2).

**Figure 1: Minnesota Wetland Management Districts**

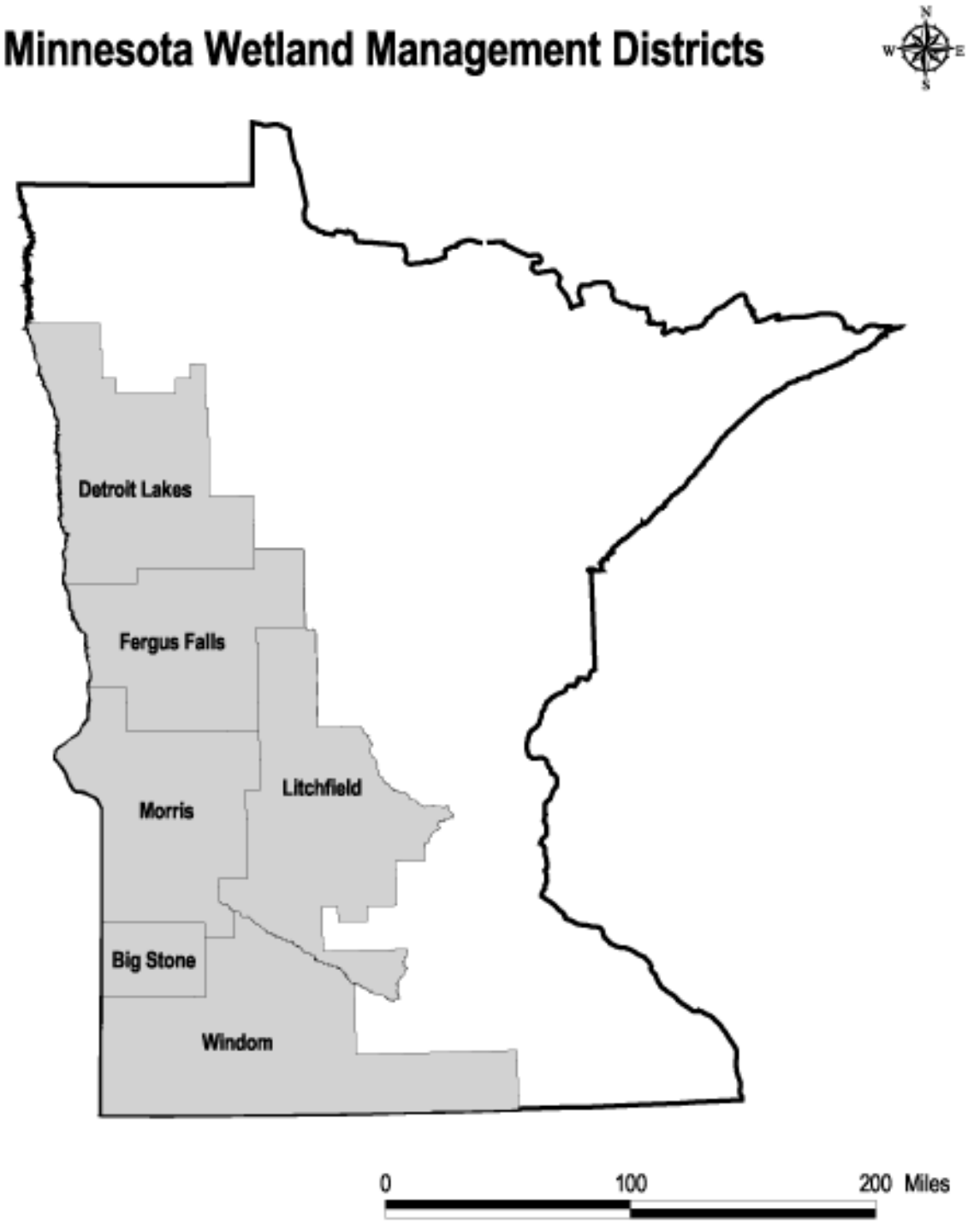
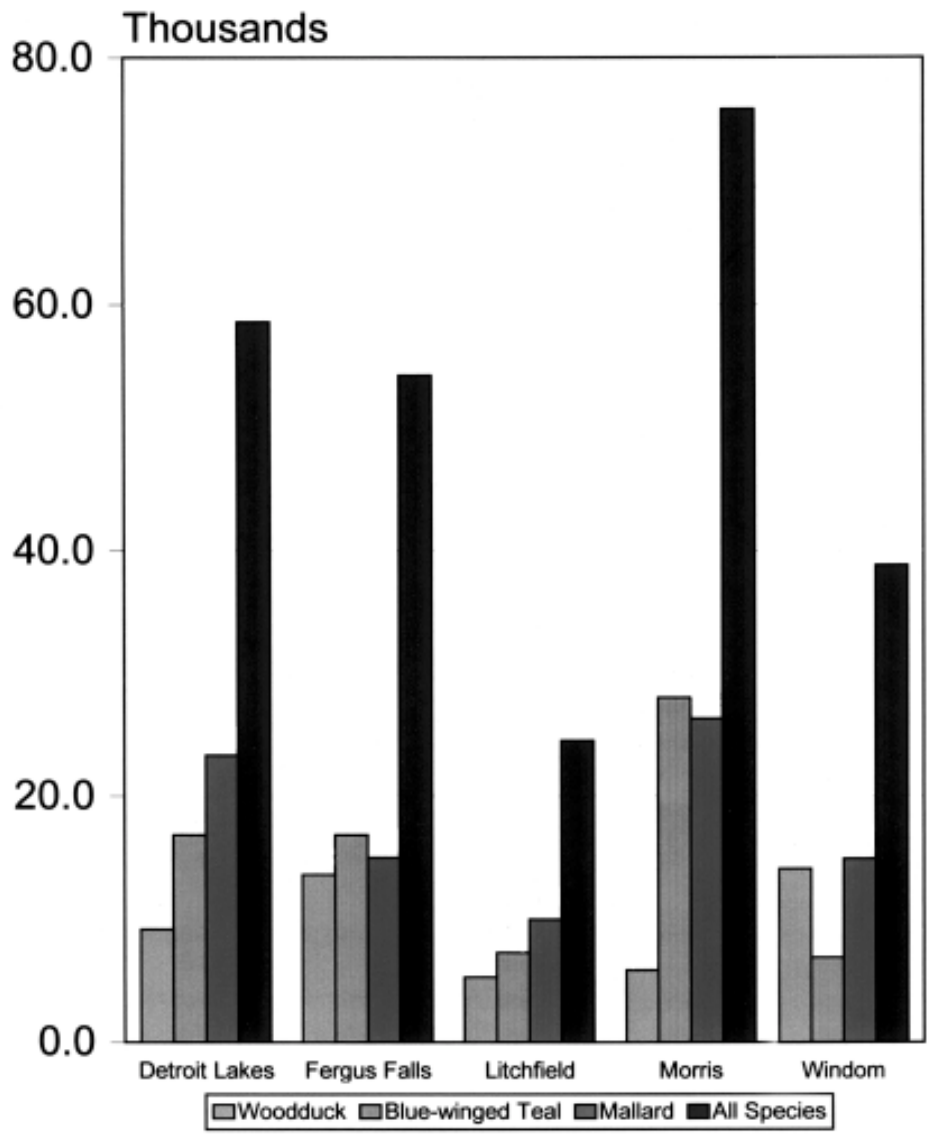


**Figure 2: Breeding Pair Population (averaged) for Major Duck Species in Minnesota Wetland Management Districts 1987-2000**




Data values are for 13 species (mallard, gadwall, blue-winged teal, northern shoveler, northern pintail, wigeon, green-winged teal, wood duck, redhead, canvasback, scaup, ringneck and ruddy duck).

Litchfield, Roseau and Windom wetland management districts data are for the years 1989-2000.

Source: Waterfowl Breeding Populations and Production Estimates, for the Prairie Pothole Region of Minnesota (4 square mile survey). Habitat and Population Evaluation Team, U.S. Fish and Wildlife Service, Fergus Falls, Minnesota

# Background

## Purpose and Need for the Comprehensive Conservation Plan

This Comprehensive Conservation Plan, or CCP, is a guide for management on the Wetland Management Districts over the next 15 years. The document provides an outline for how we will accomplish our mission and make our vision become a reality. Several legislative mandates within the National Wildlife Refuge System Improvement Act of 1997 have guided the development of the Plan. These mandates include:

- The focus of management on the Districts is to benefit wildlife conservation.
- Wildlife-dependent recreation activities, (hunting, fishing, wildlife observation, wildlife photography, environmental education and interpretation) will be emphasized when compatible.

This CCP will benefit management of Wetland Management Districts by:

- Providing a clear statement of direction for future management of the Districts.
- Giving District neighbors, visitors and the general public an understanding of the Service's management actions on and around the Districts.
- Ensuring that the Districts' management actions and programs are consistent with the mandates of the National Wildlife Refuge System.
- Ensuring that District management is consistent with federal, state and county plans.
- Establishing that wildlife-dependent recreation uses (compatible uses including hunting, fishing, wildlife observation and photography, or environmental education and interpretation) are the priority public uses within the Refuge System.
- Communicating that other uses have lower priority on the Refuge System and are only allowed if they are compatible with the mission of the Refuge System, and with the purposes of the individual refuge.
- Providing a basis for the development of budget requests on the District's operation, maintenance, and capital improvement needs.

## The U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service as we know it today has evolved and changed with the country's use of natural resources and the growing respect for the environment. Today the Service is the primary Federal agency responsible for conserving, protecting, and enhancing fish and wildlife and their habitats for the continuing benefit of the American people.

Specific responsibilities include enforcing Federal wildlife laws, managing migratory bird populations, restoring nationally significant fisheries, administering the Endangered Species Act, and restoring wildlife habitat such as wetlands. The Service also manages the National Wildlife Refuge System.

### The National Wildlife Refuge System

The National Wildlife Refuge System is a significant focus of the Service. Founded in 1903 by President Theodore Roosevelt with the designation of Pelican Island as a refuge for brown pelicans, the National Wildlife Refuge System is the world's largest collection of lands specifically managed for fish and wildlife. The System is a diverse network of more than 500 national wildlife refuges encompassing more than 92 million acres of public land and water. Most of the land – 86 percent – is in Alaska, with approximately 15 million acres spread across the lower 48 states and several island territories. Refuges provide habitat for more than 5,000 species of birds, mammals, fish, and insects.

Like Pelican Island, many early national wildlife refuges were created for herons, egrets, and other water birds. Others were set aside for large mammals like elk and bison. By far the most refuges have been created to protect migratory waterfowl. This is a result of the United States' responsibilities under international treaties for migratory bird conservation as well as other legislation, such as the Migratory Bird Conservation Act of 1929. A map of the National Wildlife Refuge System shows refuges dotting the four major flyways that waterfowl follow from their northern nesting grounds to southern wintering areas.

National wildlife refuges also play a vital role in preserving endangered and threatened species. Among the refuges that are well known for providing habitat for endangered species are Aransas National Wildlife Refuge in Texas, the winter home of the whooping crane; the Florida Panther Refuge, which protects one of the nation's most endangered mammals; and the Hawaiian Islands Refuge, home of the Laysan duck, Hawaiian monk seal and many other unique species.

Refuges also provide unique opportunities for people. When it is compatible with wildlife and habitat needs, refuges can be used for wildlife-dependent activities such as hunting, fishing, hiking, wildlife observation, photography, environmental education, and environmental interpretation. Many refuges have visitor centers, wildlife trails, automobile tours, and environmental education programs. Nationwide, more than 33 million people visited national wildlife refuges in 1999.

The National Wildlife Refuge System Improvement Act of 1997 established many mandates aimed at making the management of national wildlife refuges more cohesive. The preparation of Comprehensive Conservation Plans is one of those mandates. The legislation requires the Secretary of the Interior to ensure that the mission of the National Wildlife Refuge System and purposes of the individual refuges are carried out. It also requires the Secretary to maintain the biological integrity, diversity, and environmental health of the Refuge System.

## Minnesota Wetland Management Districts Vision Statement

The Districts will emphasize waterfowl production and ensure the preservation of habitat for migratory birds, threatened and endangered native species, and resident wildlife. The Districts will provide opportunities for the public to hunt, fish, observe and photograph wildlife, and increase public understanding and appreciation of the Northern Tallgrass Prairie Ecosystem.

## Legal and Policy Guidance

Waterfowl Production Areas within the Morris Wetland Management District are acquired under the establishing authority of the Migratory Bird Hunting Stamp Act (Duck Stamp Act) as amended (16 U.S.C. 718-718h).

"The Secretary of the Interior is authorized to utilize funds made available under subsection (b) of this section for the purposes of such subsection, and such other funds as may be appropriated for the purposes of such subsection, or of this subsection, to acquire, or defray the expense incident to the acquisition by gift, devise, lease, purchase or exchange of, small wetland and pothole areas, interests therein, and rights of way to provide access thereto. Such small areas, to be designated as " Waterfowl Production Areas" may be acquired without regard to the limitations and requirements of the Migratory Bird Conservation Act, but all the provisions of such Act which govern the administration and protection of lands acquired thereunder, except the inviolate sanctuary provisions of such Act, shall be applicable to areas acquired pursuant to this subsection."

In addition to the Morris Wetland Management District's establishing authority legislation and the National Wildlife Refuge System Improvement Act of 1997, several Federal laws, executive orders, and regulations govern its administration. See Appendix A for a list of the guiding laws and orders.

## Existing Partnerships: The Ecosystem Approach

The Service initiated its Ecosystem Approach in March of 1994. The primary goal of the Ecosystem Approach is conserving natural biological diversity and ecosystem integrity while supporting a sustainable level of human use. Nationally, the Service divided the country into 53 ecosystems based upon watersheds. Ecosystem teams, which include project leaders within each of the ecosystem boundaries, are the primary forum through which the Service implements the Ecosystem Approach.

The Service has set new standards for teamwork, creativity, flexibility, and communication between and among our operational units and with all partners within the ecosystem. The Service participates in public and private partnerships at many levels. Since many of the species under our care do not respect state and national borders, we also have a role within the larger ecosystem of the Western Hemisphere via such treaties as the Migratory Bird Treaty with our neighbors in Mexico and Canada.

In Minnesota, Wetland Management Districts fall within three organized ecosystem efforts, namely the Northern Tallgrass Prairie Habitat Protection Area, the Mississippi Headwaters/Tallgrass Prairie Ecosystem, and the Prairie Pothole Joint Venture of the North American Waterfowl Management Plan. The District programs are consistent with the goals and objectives of these major projects as well as the plan objectives for the Partners in Flight, and the U.S. Shorebird Conservation Plan.

### Migratory Bird Conservation Initiatives

Over the last decade, bird conservation planning has become increasingly exciting as it has evolved from a largely local, site-based focus to a more regional, landscape-oriented perspective. Significant challenges include locating areas of

high-quality habitat for the conservation of particular guilds and priority bird species, making sure no species are inadvertently left out of the regional planning process, avoiding unnecessary duplication of effort, and identifying unique landscape and habitat elements of particular tracts targeted for protection, management and restoration. Several migratory bird conservation initiatives have emerged to help guide the planning and implementation process. Collectively, they comprise a tremendous resource as refuges engage in comprehensive conservation planning and its translation into effective on-the-ground management.

Signed in 1986, the **North American Waterfowl Management Plan (NAWMP)** outlines a broad framework for waterfowl management strategies and conservation efforts in the United States, Canada, and Mexico. The goal of the NAWMP is to restore waterfowl populations to historic levels. The NAWMP is designed to reach its objectives through key joint venture areas, species joint ventures, and state implementation plans within these joint ventures.

*Photo Copyright by Jan Eldridge*

The Districts are in the Upper Prairie Pothole Joint Venture. One of 12 habitat-based joint ventures, this Joint Venture encompasses the states of Montana, North Dakota, South Dakota, portions of Minnesota and Iowa, and three Canadian provinces. The goal of this Joint Venture is to increase populations of waterfowl through habitat conservation projects that improve natural diversity across the U.S. Prairie Pothole landscape.

The objectives of this Joint Venture are:

*Objective 1:* By the year 2001, conserve habitat capable of supporting 6.8 million breeding ducks that achieve a recruitment rate of 0.6 under average environmental conditions, with all managed areas achieving a recruitment rate of 0.49 at a minimum.

*Objective 2:* Stabilize or increase populations of declining wetland/grassland-associated wildlife species in the Prairie Pothole Region, with special emphasis on non-waterfowl migratory birds.

Formed in 1990, **Partners in Flight (PIF)** is concerned with most landbirds and other species requiring terrestrial habitats. Partners in Flight has developed Bird Conservation Plans for numerous Physiographic Areas across the U. S. (see http://www.partnersinflight.org). These plans include priority species lists, associated habitats, and management strategies.

The **U. S. Shorebird Conservation Plan** and the **North American Waterbird Conservation Plan** are plans that address the concerns for shorebird and waterbirds. These larger scale plans identify priority species and conservation strategies.

In a continental effort, the Partners in Flight, North American Waterfowl Management, U. S. Shorebird Conservation, and the North American Waterbird Conservation plans are being integrated under the umbrella of the **North American Bird Conservation Initiative (NABCI)**. The goal of NABCI is to facilitate the delivery of the full spectrum of bird conservation through regionally-based, biologically-driven,

landscape-oriented partnerships (see http://www.dodpif.org/nabci/index.htm). The NABCI strives to integrate the conservation objectives for all birds in order to optimize the effectiveness of management strategies. NABCI uses Bird Conservation Regions (BCRs) as its planning units. Bird Conservation Areas are becoming increasingly common as the unit of choice for regional bird conservation efforts; The Districts lie within Prairie Potholes (BCR 11) and the Boreal Hardwood Transition (BCR 23).

Each of the four bird conservation initiatives has a process for designating conservation priority species, modeled to a large extent on the PIF method of calculating scores based on independent assessments of global relative abundance, breeding and wintering distribution, vulnerability to threats, area importance (at a particular scale, e.g. PA or BCR), and population trend. These scores are often used by agencies in developing lists of bird species of concern; e.g., the U. S. Fish and Wildlife Service based its assessments for its 2002 list of nongame Birds of Conservation Concern primarily on the PIF, shorebird, and waterbird status assessment scores.

## Region 3 Fish and Wildlife Resource Conservation Priorities

The Resource Conservation Priorities list is a subset of all species that occur in the Region and was derived from an objective synthesis of information on their status. The list includes all federally listed threatened and endangered species and proposed and candidate species that occur in the Region; migratory bird species derived from Service-wide and international conservation planning efforts; and rare and declining terrestrial and aquatic plants and animals that represent an abbreviation of the Endangered Species program's preliminary draft "Species of Concern" list for the Region.

Although many species are not included in the priority list, this does not mean that we consider them unimportant.

The list includes species from the Service's Mississippi Headwaters/Tallgrass Prairie Ecosystem. The list can be accessed at http://midwest.fws.gov/pdf/priority.pdf.

## Biological Needs Assessment

The National Wildlife Refuge System Biological Needs Assessment (U.S. Fish & Wildlife Service, 1998) resulted from a self-analysis of biology within the System. The Assessment addressed issues related to the biological aspect of Refuge management and proposed six goals for their resolution along with actions and strategies for achieving those goals.

The goals are:

Goal 1: Address inadequate and inconsistent biological program staffing.

Goal 2: Focus biological program activities through goals and objectives.

Goal 3: Integrate evaluation and oversight into the biological program.

Goal 4: Increase the amount and accountability of funding for the biological program.

Goal 5: Provide for career and professional needs of biological program staff.

Goal 6: Meet information needs of the biological program.

The Biological Needs Assessment provides a benchmark in measuring progress toward meeting the biological mandates of the National Wildlife Refuge System Improvement Act of 1997.

## Working With Partners

The Wetland Management Districts are composed of small parcels of land throughout western Minnesota. The effectiveness of this habitat for wildlife is enhanced when located near other protected areas. Land in programs such as The Nature Conservancy, Minnesota Department of Natural Resources, and set-asides such as the Conservation Reserve Program (CRP), and Reinvest in Minnesota (RIM) can add to "effective habitat size."

The Districts can not solve the problems posed by habitat fragmentation and contamination on its own and will work to increase "effective habitat size" by combining efforts with many partners, such as The Nature Conservancy, Ducks Unlimited, Minnesota Department of Natural Resources, as well as in programs such as CRP and RIM.